

WHAT IS CLAIMED IS:

1. Personally adjustable footwear comprising:
  - (a) at least one sole layer including: a toe portion, a heel portion, and an intermediate portion, said intermediate portion being integrally formed with both said toe portion and said heel portion, said intermediate portion having a plurality of openings passing substantially vertically through said layer so that said intermediate portion is elastically flexible to allow relative longitudinal displacement of said toe portion and said heel portion to vary a length of said layer without significant variation in a thickness of said layer; and
  - (b) a retention mechanism associated with both said toe portion and said heel portion, said retention mechanism being configured for retaining any of a plurality of relative positions between said toe portion and said heel portion.
2. The footwear of claim 1, wherein said toe portion, said heel portion and said intermediate portion are all integrally formed from a uniform composition.
3. The footwear of claim 1, wherein said plurality of openings are deployed to provide a latticework pattern as viewed from above.
4. The footwear of claim 1, wherein said at least one sole layer has an upper surface providing a foot support, wherein said plurality of openings are configured to have a maximum open longitudinal dimension no greater than about 2.5 centimeters so as to provide near-continuous foot support.
5. The footwear of claim 1, wherein said at least one sole layer is implemented as at least two sole layers including a lower sole layer having a bottom

surface configured for ground engagement and an upper sole layer including an upper surface for supporting a foot.

6. The footwear of claim 5, wherein said upper sole layer is formed from a material softer than said lower sole layer.

7. The footwear of claim 5, wherein said lower sole layer and said upper sole layer are shaped to define therebetween at least one longitudinal channel extending longitudinally between said toe portions and said heel portions, and wherein said retention mechanism includes an element deployed within said channel, said element being anchored to a first of said toe portion and said heel portion and being displaceable relative to the second of said toe portion and said heel portion.

8. The footwear of claim 1, wherein said sole layer forms at least part of a sole arrangement, said sole arrangement including at least one longitudinal channel extending longitudinally between said toe portion and said heel portion, and wherein said retention mechanism includes an element deployed within said channel, said element being anchored to a first of said toe portion and said heel portion and being displaceable relative to the second of said toe portion and said heel portion.

9. The footwear of claim 8, wherein said retention mechanism further includes a stepped resistance arrangement associated with said element and said second of said toe portion and said heel portion, said stepped resistance arrangement providing a resistive force opposing relative displacement of said toe portion and said heel portion between a plurality of predefined relative positions corresponding to a plurality of different lengths of said sole arrangement, such that a length of said sole arrangement is manually adjustable by manual application of force to overcome said resistive force, and such that, in the absence of manually applied force, said toe portion and said heel portion are retained in one of said predefined relative positions.

10. The footwear of claim 9, wherein said intermediate portion is resiliently biased to separate said toe portion and said heel portion to a predefined relative position corresponding to a maximum length of said sole arrangement, and wherein said retention mechanism further includes:

- (a) a flexible strap associated with said element and extending from said sole arrangement such that tension applied to said flexible strap relative to said second of said toe and said heel portions draws together said toe portion and said heel portion, thereby shortening said length of said sole arrangement; and
- (b) a locking arrangement for locking said flexible strap in a plurality of positions, thereby retaining said sole arrangement at a desired length.

11. The footwear of claim 8, wherein said intermediate portion is resiliently biased to separate said toe portion and said heel portion to a predefined relative position corresponding to a maximum length of said sole arrangement, and wherein said retention mechanism further includes:

- (a) a flexible strap associated with said element and extending from said sole arrangement such that tension applied to said flexible strap relative to said second of said toe and said heel portions draws together said toe portion and said heel portion, thereby shortening a length of said sole arrangement; and
- (b) a locking arrangement for locking said flexible strap in a plurality of positions, thereby retaining said sole arrangement at a desired length.

12. The footwear of claim 11, wherein said locking arrangement includes a first part of a hook-and-loop fastener associated with an end portion of said flexible strap and a complementary part of a hook-and-loop fastener associated with an upward-facing surface of said sole arrangement such that said flexible strap is folded onto said upward-facing surface to lock said sole arrangement at a desired length.

13. The footwear of claim 8, wherein said retention mechanism further includes a manually releasable and manually engagable locking mechanism for locking a position of said element relative to said second of said toe portion and said heel portion.

14. The footwear of claim 1, wherein said retention mechanism includes a manually releasable and manually engagable locking mechanism for locking a relative position of said toe portion and said heel portion.

15. Personally adjustable footwear having a toe portion, a heel portion and a mechanism for adjustment of the length of said footwear comprising one of the following:

- (a) one or more segments positioned between said toe portion and said heel portion, said segments being adapted so they can be easily positioned intermediate the toe and heel portions and easily removed therefrom or so they can be spaced apart from each other or moved closer to each other to thereby affect a desired footwear length; or
- (b) (i) an expandable and contractable bellows-like structure intermediate said toe portion and said heel portion, (ii) a tongue extending from the toe portion toward and into the heel portion, or, extending from the heel portion toward and into the toe portion, and passing through said bellows-like structure and having engaging members and (iii) a tongue receptacle disposed in either the toe portion or the heel portion, being the portion not having the tongue extending therefrom, said tongue receptacle adapted to allow engaging and disengaging with said engaging members of said tongue, whereby when said tongue and tongue receptacle are disengaged said toe portion and said heel portion can be pushed toward each other or pulled away from one another whereupon the tongue and tongue receptacle can be engaged to fix the footwear at a desired length; or

- (c) one or more projections extending from the toe portion toward and generally slidingly mating with channels in an elongated projection extending from the heel portion, or vice versa, whereby the footwear can be adjusted to a desired length.

16. Footwear according to claim 15, of the type (a), further comprising one or more segment holding members aligned essentially longitudinally to the length of said footwear and extending from said toe portion toward and into said heel portion, or, extending from said heel portion toward and into said toe portion, or, extending from one segment to another.

17. Footwear according to claim 16, wherein the one or more segment holding members is/are constituted by one or more rod-like members.

18. Footwear according to claim 17, wherein there are at least two rod-like members.

19. Footwear according to claim 16, wherein the one or more segment holding members is/are constituted by a tongue-like member.

20. Footwear according to claim 16, wherein the one or more segment holding members is/are constituted by a stretchable member.

21. Footwear according to claim 16, wherein the one or more segment holding members is/are constituted by an inter-engaging arrangement between said segments.

22. Footwear according to claim 21, wherein inter-engaging arrangement is a hooking arrangement.

23. Footwear according to claim 21, wherein inter-engaging arrangement is constituted by hook and loop fasteners.

24. Footwear according to claim 21, wherein the segments inter-engage via a male-female inter-engaging arrangement.

25. Footwear according to claim 24, wherein the male-female inter-engaging arrangement is one of a screwing and/or a snap-fit arrangement.

26. Footwear according to claim 24, wherein the male-female inter-engaging arrangement is constituted by an L-shaped projection and an L-shaped indentation.

27. Footwear according to claim 24, wherein the male-female inter-engaging arrangement is constituted by a puzzle-type inter-engagement.

28. Footwear according to claim 24, wherein the male-female inter-engaging arrangement is constituted by a nail-shaped members connecting between the segments and being disposed in cavities therein adapted to allow the segments to be slid back and forth whereby the segments may be positioned closer or farther from each other.

29. Footwear according to claim 17, wherein the segments are positionable on, and removable from, the one or more rod-like members, and for this purpose the segments have at least one through-bore adapted to allow the one or more rod-like members to pass therethrough.

30. Footwear according to claim 29, further comprising a locking mechanism disposed in either of the heel portion or the toe portion, not being the

portion from which the one or more rod-like members extend; and the toe portion or the heel portion, not being the portion from which the rod-like members extend, comprises bores alignable with said one or more rod-like members and said locking mechanism is designed to fix the one or more rod-like members at a desired location, with a suitable number of segments positioned thereon, whereby a desired length of the footwear is achieved.

31. Footwear according to claim 16, wherein the segments have a length longer than their width and the footwear comprises at least one segment having at least one through-bore being aligned with said width.

32. Footwear according to claim 16, wherein the segments have a length longer than their width and the footwear comprises at least one segment having a through-bore being aligned with said width and also having a through-bore being aligned with said length.

33. Personally adjustable footwear having a toe portion, a heel portion and a mechanism for adjustment of the length of said footwear comprising one or more segments positioned between said toe portion and said heel portion, said segments being adapted so they can be easily positioned intermediate the toe and heel portions and easily removed therefrom or so they can be spaced apart from each other or moved closer to each other to thereby affect a desired footwear length.

34. Footwear according to claim 33, wherein the segments comprise an indication of at least one of their dimensions and being the dimension oriented along the length of the footwear when the segment is incorporated therein.

35. Footwear according to claim 33, wherein the segments comprise at least one bore oriented essentially perpendicular to one or more other bores, whereby the

segment is slidable on the one or more rod-like members in a position rotated a quarter turn with respect to the position of said one or more other bores.

36. Footwear according to claim 33, of the type (a), wherein at least one of the segments is adapted so that it may be trimmed to a smaller dimension.

37. Footwear according to claim 33, of the type (a), wherein the segments are non-uniform.

38. Footwear according to claim 37, wherein the non-uniformity involves variations being of at least one of the following: shape, color, size, angle of bore(s) within, texture and material.

39. Footwear according to claim 15, of either of the type (b) or (c), wherein there is a mechanism for fixing the length of the footwear and said mechanism has associated therewith indicia for indicating a shoe size.

40. Footwear according to claim 39, wherein at least one of either one of the toe portion or the heel portion comprise(s) adapted to expose a mechanism for fixing the length of the footwear.

41. Footwear according to claim 40, further comprising a tongue extending from the toe portion toward the heel portion, or vice versa; and a tongue receptacle disposed in either the toe portion or the heel portion, being the portion not having the tongue extending therefrom, said tongue receptacle adapted to allow engaging and disengaging with said engaging members of said tongue, whereby when said tongue and tongue receptacle are disengaged said toe portion and said heel portion can be slid toward each other or away from each other, whereupon said tongue and tongue receptacle can be engaged to fix the footwear at a desired length.



42. Footwear according to claim 39, wherein the mechanism for fixing the length of the footwear comprises an arrangement for facilitating alignment of the tongue's holes and depressions in the tongue receptacle.

43. Footwear according to claim 42, wherein said arrangement for facilitating alignment of the tongue's holes and depressions in the tongue receptacle includes mutually corresponding projections at the tongue and at a corresponding tongue receptacle.

44. Footwear according to claim 15, of either of the type (b) or (c), wherein the tongue comprises projections corresponding to depressions in the tongue receptacle.

45. Footwear according to claim 15, of type (b) or (c), wherein the one or more projections have a profile being any of triangular, T-shaped, L-shaped, J-shaped, Y-shaped, anchor-shaped and cross-shaped.

46. Footwear according to claim 15, wherein the footwear includes at least one toe strap or foot strap for holding a wearer's foot to the footwear.

47. Footwear according to claim 46, further comprising an arrangement for allowing the strap(s) to attach to the sole of the footwear in different locations.

48. Personally adjustable footwear having a toe portion, a heel portion and a mechanism for allowing adjustment of the length of said footwear comprising one or more rod-like members aligned essentially longitudinally to the length of said footwear and extending from said toe portion toward and into said heel portion, or, extending from said heel portion toward and into said toe portion, (ii) segments slidably disposed on said rod-like member(s), and intermediate the toe and heel portions, and for this purpose having at least one through-bore adapted to allow the

rod-like member(s) to pass therethrough, and (iii) a locking mechanism disposed in either of the heel portion or the toe portion, not being the portion from which the rod-like member(s) extend; and the toe portion or the heel portion, not being the portion from which the rod-like member(s) extend, comprises bores alignable with said rod-like member(s) and said locking mechanism is designed to fix the rod-like member(s) at a predetermined location, with a suitable number of segments positioned on said rod-like member(s), corresponding to a desired length of the footwear.

49. Personally adjustable footwear having a toe portion, a heel portion and a mechanism for allowing adjustment of the length of said footwear comprising an expandable and contractable bellows-like structure intermediate said toe portion and said heel portion, (ii) a tongue extending from the toe portion toward and into the heel portion, or, extending from the heel portion toward and into the toe portion, and passing through said bellows-like structure and having engaging members, and (iii) a tongue receptacle disposed in either the toe portion or the heel portion, being the portion not having the tongue extending therefrom, said tongue receptacle adapted to allow engaging and disengaging with said engaging members of said tongue, whereby when said tongue and tongue receptacle are disengaged said toe portion and said heel portion can be pushed toward each other or pulled away from one another whereupon the tongue and tongue receptacle can be engaged to fix the footwear at a desired length.

50. Personally adjustable footwear having a toe portion, a heel portion and a mechanism for allowing adjustment of the length of said footwear comprising one or more projections extending from the toe portion toward and generally slidably mating with channels in an elongated projection extending from the heel portion, or vice versa, (ii) a tongue extending from the toe portion toward the heel portion, being the portion not having the tongue extending therefrom or vice versa, and being essentially flush to the portion not being the portion having the tongue extending therefrom, (iii) a tongue receptacle disposed in either the toe portion or the heel portion being the

portion not having the tongue extending therefrom, said tongue receptacle adapted to allow engaging and disengaging with said engaging members of said tongue, whereby when said tongue and tongue receptacle are disengaged said toe portion and said heel portion can be slid toward each other or away from each other whereupon said tongue and tongue receptacle can be engaged to fix the footwear at a desired length.